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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/754,705	01/12/2004	Masayuki Matsumoto	118311	9071
25944	7590	12/01/2004		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER HASAN, MOHAMMED A	
			ART UNIT 2873	PAPER NUMBER

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/754,705

Applicant(s)

MATSUMOTO ET AL.

Examiner

Mohammed Hasan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 and 9 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 6, 10, 11 and 14 is/are rejected.
- 7) ☒ Claim(s) 3, 5, 7, 12, 13 and 15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Oath/Declaration

1. Oath and declaration filed on 6/14/2004 is accepted.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: a polarization mode dispersion compensator 30 do not show in figure 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, 6, 10, 11 and 14 are rejected under 35 U.S.C. 102 (e) as being anticipated by Ooi et al (6,728,491 B1).

Regarding claim 1, Ooi et al discloses (refer to figure 1) a method for compensating polarization mode dispersion, comprising the steps of: extracting and selecting an optical signal as a monitoring signal, detecting (2a) an output of an optical signal, and controlling (220a) an optical signal so that output of said optical signal is maximized (column 15, lines 46 – 65, column 16, lines 1 – 40).

Regarding claim 2, Ooi et al discloses, wherein an optical signal is controlled with a polarization mode dispersion compensator (7a) (column 15, line 49).

Regarding claim 4, Ooi et al discloses (refer to figure 2) wherein an optical is controlled in multistage with a plurality of polarization mode dispersion compensators (206 a and 7a) (column 16, lines 45 – 57).

Regarding claim 6, Ooi et al discloses (refer to figure 6) an optical amplifier 102 A (column 28, line 58).

Regarding claim 10. Ooi et al discloses (refer to figure 6) an optical fiber communication system (100), comprising: a transmitter (101), a receiver (102), a polarization mode dispersion compensator (105) provided between transmitter and said receiver, and an optical fiber path (i.e., polarization fiber 4A —4) to connect transmitter (101) and receiver (102) via a polarization mode dispersion compensator (105) and to transfer a given optical signal to said receiver from said transmitter (column 27 , lines 35 – 55).

Regarding claim 11, Ooi et al discloses (refer to figures 2 and 6) an optical fiber communication system (100), comprising: a transmitter (101), a receiver (102), a plurality of polarization mode dispersion compensator (206a and 7a) (i.e., 206 a chromatic dispersion, column 15, lines 66 – 67, column 16, lines 1 – 4) provided between the transmitter and receiver, and an optical fiber path (i.e., polarization fiber 4A – 4) to connect the transmitter (101) and receiver (102) via a polarization mode dispersion compensator and to transfer a given an optical signal to receiver from transmitter (column 27, lines 35 – 55, column 16, lines 45 – 57).

Regarding claim 14, Ooi et al discloses (refer to figure 6) an amplifier 101c provided between the transmitter 101 and receiver 102 (column 27, lines 35 – 55).

Allowable Subject Matter

4. Claims 8 and 9 are allowed.

5. The following is an examiner's statement of reasons for allowance: The prior art taken either singularly or in a combination fails to anticipate or fairly suggest the limitations of the independent claims, in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in independent claim 8, a polarization mode dispersion compensator comprises a polarization rotator, a polarizer and an optical electric power detector, and whereby an optical signal is introduced into polarization rotator to control an optical signal so that output of optical signal is maximized through the rotation of a plane of polarization of an optical signal, and then, introduced into polarizer to pass a linear polarization of optical signal therethrough, and then, introduced into an optical electric power detector to detect output of an optical signal.

6. Claims 3, 5, 7, 12, 13, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to show a polarization mode dispersion compensator comprises a polarization rotator, a polarizer and an optical electric power detector, and whereby an optical signal is introduced into polarization rotator to control an optical signal so that said output of optical signal is maximized through the rotation of a plane

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of polarization of an optical signal, and then, introduced into polarizer to pass a linear polarization of optical signal therethrough, and then, introduced into an optical electric power detector to detect output of an optical signal, and an optical signal is amplified with a rare earth metal doped optical fiber amplifier.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The closest prior art

Mao (6,681,081 B2) discloses, a method of avoiding excessive polarization mode dispersion in an optical communication link.


Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammed Hasan whose telephone number is (571) 272-2331. The examiner can normally be reached on M-TH, 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272- 2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MH
November 23, 2004


Georgia Epps
Supervisory Patent Examiner
Technology Center 2800